REMARKS

Claim 1-54 are pending. Please amend Claims 1-2, 17-23, 25-29, 45-50 and 52 are amended to more particularly point out and distinctly claim Applicants' invention.

The Examiner rejected Claims 1-16 and 28-43 under 35 U.S.C. § 112, second paragraph as being indefinite, the Examiner citing a grammatical ambiguity in independent Claims 1 and 28. As amended, the grammatical ambiguity is removed from each of these claims.

The Examiner objected to Claim 17 also for a grammatical reason. As amended, the Examiner's objection to Claim 17 is believed overcome.

The Examiner rejected Claims 1, 7-9, 11-15, 28, 34-36 and 38-42 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0032048 ("Kitao"). With respect to Claim 1, the Examiner states:

> Regarding claim 1, Kitao discloses an in-vehicle wireless communication system handset controller (105, figure 2) comprising a central processing unit *(205,* figure 3), an interface (202a, figure 3) which allows a wireless communication system handset (106, figure 3) to be controlled by the central processing unit, an input unit (203, figure 3 and figures 7A-7B), an output unit (210, figure 3) comprising a display, wherein the central processing unit executes instructions which allow the keys of the input unit to be used to provide input data to the handset, and which output data to be display on the handset on the display of the output unit, while the handset is operationally coupled to the handset controller *([0045]* through [0070]). Although Kitao does not specifically teaching the input unit comprising data input keys larger than keys on a keypad of the handset and the output unit comprising the display larger than a display of the handset, wherein displayed message text characters on the output unit display are larger than displayed message text character on the handset display, Kitao teaches to provide a convenient in-vehicle wireless communication system handset controller that makes

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an easy-to-operate ([0013] through [0015]). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Kitao in having the input unit comprising data input keys larger than keys on a keypad of the handset and the output unit comprising the display larger than a display of the handset, wherein displayed message text characters on the output unit display are larger than displayed message text character on the handset display, in order to make an easy-to-operate.

Applicants respectfully traverse the Examiner's rejection. As amended, Claim 1 recites a handset controller that is operationally coupled to the handset through a location information processing unit:

> 1. An in-vehicle wireless communication system handset controller comprising:
>
> a central processing unit;
>
> an interface to a location information processing unit that connects to wireless communication system handset, wherein the wireless communication system handset accesses a wide area computer network and wherein the location information processing unit allows the wireless communication handset to be controlled by the central processing unit;
>
> an input unit comprising data input keys larger than keys on a keypad of the handset; and
>
> an output unit comprising a display larger than a display of the handset, wherein displayed message text characters on the output unit display are larger than displayed message text characters on the handset display, and wherein, while the handset is operationally coupled to the handset controller, the central processing unit executes instructions which allow the keys of the input unit to be used to provide input data to the handset, and which output data for on the handset on the output unit display.

As explained in Applicants' Specification, at page 19, line 14 to page 20, line 1, the in-vehicle wireless communication system handset controller provides enhanced control features that adds to the flexibility and functions of the location information processing unit not available in the prior art. As Kitao merely provides access to a wireless telephone, Kitao

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neither discloses nor suggests Applicants' Claim 1. Claim 1 and its dependent Claims 7-9 and 11-16 are therefore allowable over Kitao. Similarly, Claim 28 and its dependent Claims 34-36 and 38-42, which also recite a handset controller that is operationally coupled to the handset through a location information processing unit, are likewise allowable over Kitao. Reconsideration and allowance of Claims 1, 7-9, 11-16, 28, 34-36 and 38-42 are accordingly requested.

The Examiner rejected Claims 2 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Kitao in view of U.S. Patent 6,526,335 ("Treyz"). The Examiner relies on Treyz to teach a global positioning chipset:

> Regarding claim 2, Kitao differs from the claimed invention in not specifically teaching a global positioning system chipset coupled to the central processing unit. However, Treyz teaches an in-vehicle wireless communication system having a global positioning system chipset (112, figure 3) coupled to a central processing unit (72, figure 3) for receiving GPS satellite signals, thereby making user friendly by providing location information to a user (col. 13, lines 66-67). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kitao in having the global positioning system chipset coupled to the central processing unit, as per teaching of Treyz, in order to make user friendly by providing location information to a user.

Applicants respectfully traverse the Examiner's rejection. Claim 2 depends from Claim 1. As explained above, as Kitao neither discloses nor suggests Claim 1, the combined teachings of Kitao and Treyz, as set forth by the Examiner above, do not render Applicants' Claim 2 obvious. Similarly, the combined teachings of Kitao and Treyz also do not disclose or suggest Claim 29. Reconsideration and allowance of Claims 2 and 29 are therefore requested.

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The Examiner rejected Claims 3, 16, 30, and 43 under 35 U.S.C. § 103(a) as being

unpatentable over Kitao in view of U.S. Patent 5,991,640 ("Lilja"). The Examiner relies on Lilja to teach short message services and a docking and electrical interface:

> Regarding claim 3, Kitao differs from the claimed invention in not specifically teaching short message service messages being input via the input unit and output through the output unit. However, it is notoriously well known in the art of a portable cellular telephone having expanded functions including short message services, for example see Lilja (col. 2 lines 19-28). Therefore, it would have been obvious to 2 person of ordinary skill in the art at the time the invention was made to modify Kitao in having short message service messages being input via the input unit and output through the output unit, as per teaching of Lilja, in order to provide expanded functions.
>
> Regarding claim 16, Kitao differs from the claimed invention in not specifically teaching a power supply coupled to charge a battery in the handset. However, Lilja teaches a phone unit of a docking and electrical interface simultaneously supporting a portable mobile cellular telephone, providing battery charging via a power unit for the portable mobile cellular telephone, and interfacing the master electronic system via an audio unit and a master data unit (col. 2 lines 8-17 and col. 4 lines 20-32), thereby providing with charge for the portable mobile cellular telephone. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kitao in having power supply coupled to charge a battery in the handset, as per teaching of Lilja, in order to enhance the system by providing with charge for the portable mobile cellular telephone.

Applicants respectfully traverse the Examiner's rejection. Claims 3 and 16 each depend from Claim 1. As explained above, as Kitao neither discloses nor suggests Claim 1, the combined teachings of Kitao and Lilja, as set forth by the Examiner above, do not render Applicants' Claims 3 and 16 obvious. Similarly, the combined teachings of Kitao and Lilja also do not disclose or suggest Claims 30 and 43. Reconsideration and allowance of Claims 3, 16, 30 and 43 are therefore requested.

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The Examiner rejected Claims 4-6, 17-21, 23, 27, 31-33, 44-48, 50 and 54 under 35 U.S.C. § 103(a) as being unpatentable over Kitao, in view of Japanese Patent Publication

10291446 ("Hayashi"). With respect to Claim 4-6, the Examiner relies upon Hayashi to teach various portable telephone user interfaces:

> Regarding claims 4-6, Katio differs from the claimed invention in not specifically teaching to output a warning to a user if the handset is not coupled to the handset controller and an engine of the vehicle is started or begins to move. However, Hayashi teaches a telephone system comprising a warning unit generating warning based on the connection state of a portable telephone mounted in a vehicle and the vehicle state in order to inform the connection status to a user, thereby making user friendly (abstract). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Katio in outputting a warning to a user if the handset is not coupled to the handset controller depending on the vehicle operating state, as per teaching of Hayashi, in order to inform the connection status to a user, thereby making user friendly.

Applicants respectfully traverse the Examiner's rejection. Claims 4-6 each depend from Claim 1. As explained above, as Kitao neither discloses nor suggests Claim 1, the combined teachings of Kitao and Hayashi, as set forth by the Examiner above, do not render Applicants' Claims 4-6 obvious. As Claim 28 recite limitations similar to those recited in Claim 1, dependent Claim 31-33 of Claim 28 are likewise allowable over the combined teachings of Kitao and Hayashi.

With respect to Claims 17-21, 23 and 27, the Examiner states:

> Regarding claim 17, Katio discloses a method for controlling a wireless communication handset comprising the steps of enabling keys (203, figure 3) on an in-vehicle controller (105, figure 3) to received input data for a handset (106, figure 3) while the handset is operationally coupled to the in-vehicle controller, and displaying messages received by the handset on a display in an output unit (210, figure 3) of the handset controller ([0045] through [0070]). Although Kitao does not specifically teaching the keys on the controller being larger than keys on a keypad of the handset and displayed message text characters on the output unit display being larger than displayed message text character on the handset display, Kitao teaches to

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provide a convenient in-vehicle wireless communication system handset controller that makes an easy-to-operate ([0013] through [0015]). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Kitao in having the keys on the controller being larger than keys on a keypad of the handset and displayed message text characters on the output unit display being larger than displayed message text character on the handset display, in order to make an easy-to-operate. Kitao differs from the claimed invention in not specifically teaching to output a warning to a user if the handset is not coupled to the handset controller. However, Hayashi teaches a telephone system comprising a warning unit generating warning based on the connection state of a portable telephone mounted in a vehicle and the vehicle state in order to inform the connection status to a user, thereby making user friendly (abstract). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kitao in outputting a warning to a user if the handset is not coupled to the handset controller, as per teaching of Hayashi, in order to inform the connection status to a user, thereby making user friendly.

Regarding claims 18-19, the limitations of the claims are rejected as the same reasons set forth in claims 4-6.

Regarding claim 20, Kitao teaches the data input keys on the screen for entering data ([0070]). Thus, one skill in the art would recognize the controller comprising backlighted keys.

Regarding claim 21, Kitao teaches to provide the display for making an easy-to-operate ([0013] through [0015]). Thus, one skill in the art would recognize to backlight a display for outputting the larger message text characters.

Regarding claim 23, Kitao teaches an audio recognition process unit being included in the controller and the operation being input according to the sounds that are input with the microphone ([0162]) so that one skill in the art would recognize Kitao teaches the step of enabling a voice interface on the handset controller to control the operations of the handset while the handset is operationally coupled to the handset controller.

Regarding claim 27, Kitao teaches the iuvention being designed for use in the in-car environment ([0014]) so that one skill in the art would recognize one of the received messages being a cargo pickup or delivery instruction to a driver of the vehicle.

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Applicants respectfully traverse the Examiner's rejection. As in Claim 1, Claim 17 recites operationally coupling a wireless communication system handset through a location information processing unit:

> 17. A method for controlling a wireless communication system handset, comprising the acts of:
>
> providing a location processing unit that couples to a wireless communication handset, wherein the wireless communication handset accesses a wide area network; and
>
> providing, in the location processing unit, an interface through which an in-vehicle controller may operationally couple to the wireless communication handset; wherein, while the handset is operationally coupled to ~~an~~ the in-vehicle controller, the in-vehicle controller carries out a a method comprising:
>
> (a) enabling keys on an input unit of ~~an~~ the in-vehicle controller to receive input data for the handset, the keys on the controller being larger than keys on the handset; and
>
> (b) displaying messages received by the handset on a display in an output unit of the handset controller, such that displayed message text characters are larger than message text characters displayed by the handset; and
>
> (c) outputting a warning if the handset is not operationally coupled to the controller.

(emphasis added)

Kitao neither discloses nor suggests operationally coupling to a wireless communication system handset through a location information processing unit, as explained above with respect to Claims 1 and 28. Thus, Applicants respectfully submit that Claims 17-21, 23 and 27 are not rendered obvious by Kitao and Hayashi. As Claim 44 recite limitations substantially similar to those recited in Claim 17, Claim 44 and its dependent Claims 45-48 and 50 and 54 are likewise allowable over Kitao and Hayashi.

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Therefore, reconsideration and allowance of Claims 4-6, 17-21, 23, 27, 31-33, 44-48, 50 and 54 are therefore requested.

The Examiner rejected Claims 10 and 37 under 35 U.S.C. § 103(a) as being unpatentable over Kitao in view of Japanese Patent Publication 10233865 ("Nakahara"). The Examiner states:

> Regarding claim 10, Kitao differs from the claimed invention in not specifically teaching the display comprising a heads-up display positioned such that a driver of the vehicle sees a displayed image while looking through a windshield of the vehicle. However, Nakahara teaches an on-vehicle communication system to enable a vehicle driver to see a display image without turning his eyes from the path ahead and to improve the convenience of the on-vehicle communication system by a head-up display (figure *5* and abstract). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kitao in having the heads-up display positioned such that a driver of the vehicle sees a displayed image while looking through a windshield of the vehicle, as per teaching of Nakahara, in order to improve the convenience of the on-vehicle communication system.
>
> Regarding claim 37, the limitations of the claim are rejected as the same reasons set forth in claim 10.

Applicants respectfully traverse the Examiner's rejection. As Claims 1 and 37 respectively depend from Claims 1 and 28, which are neither disclosed nor suggested by Kitao, as explained above, Applicants respectfully submit that Claims 10 and 37 are each allowable over the combined teachings of Kitao and Nakahara. Reconsideration and allowance of Claims 10 and 37 are therefore requested.

> The Examiner rejected Claims 22 and 49 under 35 U.S.C. § 103(a) as being unpatentable over Kitao, in view of Hayashi and further in view of Nakahara. The Examiner states: The combination of Kitao and Hayashi differs from the claimed invention in not specifically teaching the display comprising a heads-up display positioned such that a driver of the vehicle

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> sees a displayed image while looking through a windshield of the vehicle. However, Nakahara teaches an on-vehicle communication system to enable a vehicle driver to see a display image without turning his eyes from the path ahead and to improve the convenience of the on-vehicle communication system by a head-up display (figure 5 and abstract). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Kitao and Hayashi in having the heads-up display positioned such that a driver of the vehicle sees a displayed image while looking through a windshield of the vehicle, as per teaching of Nakahara, in order to improve the convenience of the on-vehicle communication system.

Applicants respectfully traverse the Examiner's rejection. As Claims 22 and 47 respectively depend from Claims 17 and 44, which are neither disclosed nor suggested by Kitao and Hayashi, as explained above, and since the Examiner relies upon Nakahara teach merely a heads-up display position, Applicants respectfully submit that Claims 22 and 47 are each allowable over the combined teachings of Kitao, Hayashi and Nakahara. Reconsideration and allowance of Claims 22 and 47 are therefore requested.

The Examiner rejected Claims 25-26 and 52-53 under 35 U.S.C. § 103(a) as being unpatentable over Kitao in view of Hayashi and further in view of Treyz. The Examiner states:

> Regarding claim 25, the combination of Kitao and Hayashi differs from the claimed invention in not specifically teaching to use the handset controller to determine a geographic position of the vehicle and sending the determined position to a computer. However, Treyz teaches an in-vehicle wireless communication system having a global positioning system chipset (112, figure 3) coupled to a central processing unit (72, figure 3) for receiving GPS satellite signals, thereby making user friendly by providing location information to a user (col. 13, lines 66-67). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kitao in using the handset controller to determine a geographic position of the vehicle and sending the determined position to a computer, as per teaching of Treyz, in order to make user friendly by providing location information to

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a user.

> Regarding claim 26, the combination of Kitao and Hayashi differs from the claimed invention in not specifically teaching the acts of receiving a plurality of messages, wherein each unique received message is formatted by a corresponding unique sender in one of a plurality of communication protocols, and identifying the communication protocol and format of each received message, and outputting each unique received message as formatted by each corresponding unique sender. However, Treyz discloses the automobile computer system capable of utilizing various formats to transmit and receive data (col. 12 lines 54-63). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Kitao and Hayashi in having the acts of receiving a plurality of messages, wherein each unique received message is formatted by a corresponding unique sender in one of a plurality of communication protocols, and identifying the communication protocol and format of each received message, and outputting each unique received message as formatted by each corresponding unique sender, as per teaching of Treyz, in order to compatible with a plurality of communication protocols.
>
> Regarding claim 52, the limitations of the claim are rejected as the same reasons set forth in claim 25.
>
> Regarding claim 53, the limitations of the claim are rejected as the same reasons set forth in claim 26.

Applicants respectfully traverse the Examiner's rejection. As Claims 25-26 and 52-53 respectively depend from Claims 17 and 44, which are neither disclosed nor suggested by Kitao and Hayashi, as explained above, and since the Examiner relies upon Trez merely to teach a GPS chipset, Applicants respectfully submit that Claims 25-26 and 52-53 are each allowable over the combined teachings of Kitao, Hayashi and Treyz. Reconsideration and allowance of Claims 25-26 and 52-53 are therefore requested.

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For the foregoing reasons, Applicants submit that all pending claims (i.e., Claims 1-54) are each allowable over the prior art of record. Reconsideration and allowance of these claims are respectfully requested. If the Examiner has any questions regarding the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicants at 408-392-9250.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 13, 2006.

Attorney for Applicant(s) — Date of Signature: 3/13/2006

Respectfully submitted,

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